

What is claimed is:

1. A communications system comprising:
 - a first holographic communications server;
 - a first holographic multiplexer/demultiplexer, coupled to said first holographic communications server;
 - a second holographic communications server; and
 - a second holographic multiplexer/demultiplexer, coupled to said second holographic communications server; and

wherein the first and second multiplexer/demultiplexers are coupled by an optical communications link.
2. The system according to claim 1 further comprising a plurality of mobile communications devices coupled to said second holographic communications server.
3. The system according to claim 1 further comprising a plurality of fixed communications devices coupled to said second holographic communications server.
4. The system according to claim 1 further comprising:
 - a radio frequency communications device coupled to said second holographic communications server; and
 - a plurality of mobile communications devices coupled to said radio frequency communications device.
5. The system according to claim 1 further comprising a radio frequency communications server coupled to said second holographic communications server.

6. The system according to claim 5 wherein said radio frequency communications server comprises a radio transmitter and an antenna.

7. The system according to claim 1 further comprising a satellite communications server coupled to said second holographic communications server.

8. The system according to claim 1 further comprising a fiber optic communications server coupled to said second holographic communications server.

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9. The system according to claim 1 further comprising a terrestrial communications server coupled to said second holographic communications server.

10. The system according to claim 1 further comprising a global positioning satellite (GPS) communications device coupled to said second holographic communications server.

11. The system according to claim 1 further comprising a computer system for coupled to said second holographic communications server.

12. The system according to claim 11 wherein said computer system detects a data rate of a communications signal and routes said communications signal to one of a plurality of communications systems based upon said data rate.

13. The system according to claim 12 wherein said computer system translates a protocol of said communications signal to correspond to a protocol of the communications system to which said communications signal is routed.

14. A space to space, land to land and space to land long distance communications system comprising:

spaced based receiving and transmitting means for receiving and transmitting a communication signal; and

land based receiving and transmitting means for receiving and transmitting said communication signal;

wherein said spaced based receiving and transmitting means communicates with said land based receiving and transmitting means by wireless laser beams utilizing a holographic multiplexer and a holographic demultiplexer.

15. An mobile communications apparatus comprising:

a transmitter/receiver, and

at least one of a holographic multiplexer and a holographic demultiplexer, coupled to said transmitter/receiver.

16. The apparatus of claim 15 further comprising a power source coupled to said transmitter/receiver.

17. The apparatus of claim 16 wherein said power source comprises a solar panel.

18. A communications system comprising:

a holographic multiplexer;

a holographic demultiplexer; and

an optical interleaver located downstream of one of said holographic multiplexer and said holographic demultiplexer for separating laser beam wavelengths.